

ABSTRACT

BaAuGe, BaAuGaGe, BaPtGe, BaPdGe, BaPdGaGe, BaPdGaSi, BaPtGaSi, BaCuGaGe, and BaAgGaGe clathrate compounds, and thermoelectric conversion element comprising the clathrate compounds. Methods for producing thermoelectric conversion elements are also provided, comprising melting, heat-treating, particle-forming, and sintering processes.